



**UNITED STATES DEPARTMENT OF COMMERCE  
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
08/756,830	11/20/96	BEAMAN	B Y0995-023X

DANIEL P MORRIS  
IBM CORPORATION  
INTELLECTUAL PROPERTY LAW DEPT  
P O BOX 218  
YORKTOWN HEIGHTS NY 10598

MM41/0803

EXAMINER  
NGUYEN, V

ART UNIT	PAPER NUMBER
2858	15

DATE MAILED: 08/03/98

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

# Office Action Summary

Application No.  
08/756,830

Applicant(s)  
Beaman et al

Examiner  
Vinh P. Nguyen

Group Art Unit  
2858



☒ Responsive to communication(s) filed on Jul 21, 1998

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire three month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

## Disposition of Claims

☒ Claim(s) 2-16, 19-23, 36, 38-45, and 47-49 is/are pending in the application.

Of the above, claim(s) 2-15, 19-21, 23, 43, 45, 47, and 48 is/are withdrawn from consideration.

☒ Claim(s) 36 and 38-42 is/are allowed.

☒ Claim(s) 16, 22, 44, and 49 is/are rejected.

☐ Claim(s) \_\_\_\_\_ is/are objected to.

☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.

## Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been  
☐ received.

☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

☒ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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1. Claim 44 is rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

It appears that the limitation of "said first layer inhibits oxidation and diffusion at temperature up to 200 °C" as recited in the claim 44 does not have original support. Therefore this limitation introduces new matter.

2. Claims 44 and 49 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 44, "said first layer" and "said second layer" have no antecedent basis, therefore these terms are indefinite. In claim 49, "said enlarged tip" and "said second surface" have no antecedent basis, therefore these terms are indefinite.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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4. Claims 44 is rejected under 35 U.S.C. 103(a) as being unpatentable over Beaman et al (Pat # 4,998,885) in view of Yutori et al (Pat # 5,51653).

As to claim 44, Beaman discloses an elastomeric area array interposer (as shown in figure # 5) having a substrate (20), a plurality of conductive members (23,30,40,50) on the surface of the substrate (20) and a sheet of material (60) with a plurality of openings disposed for alignment with the conductive members (23,30,40,50). It is noted that each of the members has an enlarged base (23,ball shaped contact), an elongated electrically conductive member (40) in contact with the base and extending away from the base, and a contact end (50). Yutori et al teach that it would have been well-known to have a probe with two coating layers as shown in figure # 2. It would have been well known for one of ordinary skill in the probe art to coat the contact ends (50) with two layers as taught by Yutori et al so that the probe can have a durable body and better conduction. Furthermore, the coating layers could be selected from the group consisting of Cr, Ti, TiN, Ni, Zr, ZrN, Co, Pt, Ir, Rh, Ru and Pd. The limitation of "said first layer inhibits oxidation and diffusion at temperature up to 200 °C" is not given any patentable weight.

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 16,22 and 49 are rejected under 35 U.S.C. 102(b) as being anticipated by Zifcak et al (Pat # 4,793,814).

As to claims 16,22 and 49, Zifcak et al disclose electrical circuit board interconnect having a substrate (16), a plurality of conductive contacts (36) disposed on a surface of the substrate (16), a sheet of material (13) with a plurality of openings extending from a first side to a second side of the sheet

(13), a plurality of conductive members extending through the plurality of openings of the sheet material (13). It appears that each of the conductive members has an enlarge base and an enlarge tip end and this tip has a stud shape. It appears that each of the enlarge base of the conductive members is rigidly attached on each of the contact locations.

7. Claims 36 and 38-42 are allowable since the prior art does not disclose a detailed apparatus for making electrical contact with an integrated circuit device.


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8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to VINH P. NGUYEN whose telephone number is (703) 305-4914.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-4900.

  
VINH P. NGUYEN  
PRIMARY EXAMINER  
ART UNIT 2858

07/24/98